

TRANSPORTATION ELEMENT

- Linking growth and transportation and accommodating all users -

■ DISCUSSION

Ownership, control, development and maintenance of public rights-of-way are primary functions of city government. Transportation investments shape development patterns that, in turn, influence the economic health, safety, and character of a community. The design, construction, and maintenance of city streets, roads, sidewalks, trails and other transportation facilities impact all Renton residents, employees, and visitors.

For many decades, transportation problems have been seen primarily as engineering problems with engineering solutions. As a result, transportation planning has been primarily concerned with the construction of new facilities – mostly roads but also transit, airport, and rail facilities – and has relied on gas taxes to fund the construction. However, our current transportation challenges are different.

The facilities built in preceding decades are reaching the end of their design life and require maintenance, rehabilitation, or retrofitting. Securing revenue for transportation investments is increasingly difficult as the purchasing power of gas tax revenue has eroded steadily over time along with the increasing difficulty of generating greater revenue through taxes. The public's concerns about transportation issues have also expanded beyond cost and mobility to include neighborhood impacts, sustainability, and accommodations for all types of users. There is growing demand for alternatives to single-occupancy vehicles and reducing the impacts of transportation on the environment.

While specific responsibility and authority for transportation choices is divided amongst various governments and agencies, users expect local and regional transportation facilities to function as a unified system. Achieving that requires coordination with federal, state, regional, county, and municipal stakeholders and decision makers.

Renton has been designated a Core City by the Puget Sound Regional Council (PSRC). A Core City

contains a regionally designated growth center – Renton's Urban Center encompassing Boeing, The Landing, and Downtown Business District – serves as a key hub for the region's long-range multimodal transportation system, and also provides major civic, cultural, and employment centers.

Transportation planning is called to "protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development." *Federal Highway Administration.*



Downtown Transit Center, Credit: City of Renton

This Transportation Element assists the City of Renton in coordinating transportation and land use planning within its municipal boundaries, guides development of a multimodal system that provides transportation choices for all users, and facilitates interjurisdictional coordination of transportation related projects. This element is consistent with Puget Sound Regional Council's *VISION 2040* and *Transportation 2040*.

This Transportation Element includes goals and policies addressing the following topics:

- Framework and General Goals
- Maintenance, Management and Safety
- Transportation Demand Management



- Street Network
- Pedestrian and Bicycle Transportation
- Transit and High Occupancy Vehicles (HOV)
- Transportation Options and Mobility
- Growth Strategy, Land Use and Transportation
- Level of Service Standards, Design, and Concurrency
- Freight
- Airport
- Finance, Investment, and Implementation
- Intergovernmental Coordination

FRAMEWORK GOAL STATEMENT

Coordinate transportation investments with the pace of growth and land use development patterns to ensure Renton maintains an efficient, balanced, multimodal transportation system.

GENERAL GOALS AND POLICIES

The following goals and policies are applicable in all transportation decisions. Policies specific to particular transportation topics are covered elsewhere in this element.

GOALS

Goal T-A: Continue to develop a transportation system that stimulates, supports, and enhances the safe, efficient and reliable movement of people, vehicles, and goods.

Goal T-B: Balance transportation needs with other community values and needs by providing facilities that promote vibrant commerce, clean air and water, and health and recreation.

Goal T-C: Maintain, preserve, and extend the life and utility of transportation investments.

Goal T-D: Reduce the number of trips made via single occupant vehicle.

Goal T-E: Apply technological solutions to improve the efficiency of the transportation system.

Goal T-F: Promote and develop local air transportation facilities in a responsible and efficient manner.

Goal T-G: Establish a stable, long-term financial foundation for continuously improving the quality, effectiveness and efficiency of the transportation system.

POLICIES

Policy T-1: Develop a connected network of transportation facilities where public streets are planned, designed, constructed, and maintained for safe convenient travel of all users – motor vehicle drivers, pedestrians, bicyclists, and transit riders of all ages and abilities.

Policy T-2: Implement a multimodal level of service that maximizes mobility, is coordinated with level of service standards of adjacent jurisdictions, and meets concurrency requirements.

Policy T-3: Develop a transportation system that preserves and protects natural resources and complies with regional, state, and federal air and water quality standards.

Policy T-4: Support electric vehicle infrastructure in all areas except those zoned for resource use or those areas designated as critical areas.

Policy T-5: Support transportation modes and technologies that are energy-efficient and improve system performance



City Maintenance Crew, Credit: City of Renton



MAINTENANCE, MANAGEMENT AND SAFETY

The design, construction, operation and maintenance of the transportation system impacts long-term use and safety for all users. Safety planning and mitigation, including strategies for protecting the transportation system from disasters, includes multidisciplinary efforts that can significantly improve the livability of our community.

POLICIES

Policy T-6: Establish essential maintenance, preservation and safety improvements of the transportation systems as a high priority.

Policy T-7: Ensure maintenance and preservation of the transportation systems are high priorities in resource allocations. Maintain and preserve the transportation system mindful of life-cycle costs associated with delayed maintenance.

Policy T-8: Develop and coordinate prevention and recovery strategies and disaster response plans with regional and local agencies to protect the transportation system against major disruptions.

Policy T-9: Optimize the performance of the transportation network and improve efficiency and safety for various travel modes through signal timing coordination, signal retiming on a regular basis, maintenance and capital replacement programs, and other operational improvements of existing and planned transportation facilities.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) focuses on more effectively using existing and planned transportation capacity, ensures compatibility with planned uses, helps accommodate growth consistent with community character and land use objectives, offers alternatives to single occupancy vehicle (SOV) travel and serves to mitigate impacts and better meet mobility needs.

Reducing trip-making, dispersing peak period travel demand throughout the day, and increasing transit usage and ride sharing are significantly less costly

means of accommodating increased travel demands than constructing new or widening existing transportation facilities. Reducing the number of trips made via single occupant vehicles is also an effective way of reducing automobile-related air pollution, traffic congestion and energy use.

Intelligent Transportation Systems (ITS) can be used to apply technological solutions to problems such as congestion, safety, and mobility. Substantial investment in ITS – such as signs and internet sites providing real time feedback on travel times and alternatives – continues in the Puget Sound Region. The City is currently developing plans to implement an adaptive signal control system (ACSC) along the SW 43rd Street/Carr Road/Petrovitsky Road corridor as was installed on Rainier Avenue S. Adaptive signal control systems adjust the timing of intersection stop lights (green, yellow, red lights) to accommodate changing traffic patterns and ease traffic congestion (FHWA 2015).

The location and supply of parking is an integral part of the local transportation system and TDM strategies as well as important to commerce and private enterprise. Inadequate parking can increase congestion on streets as people circle and hunt for available spaces. Too much parking can deter use of alternative travel modes, including transit. A proper balance needs to be achieved between parking supply and demand. Providing for “right size” parking ratios based on a district’s land use intensity and access to transit is important to community character and mobility, and can help reduce total costs of development. Satellite parking with shuttle services and collective structured parking are potential physical methods for managing and increasing the parking supply. For example, Boeing currently utilizes shuttle service to the plant from off-site parking areas.



Opportunities to reduce SOV travel are particularly found in Renton's mixed use centers. Regional plans call for Regional Growth Centers such as Renton's to work towards reducing SOV shares. In 2014, PSRC estimated the following work trip mode shares in Renton's Regional Growth Center as of a 2010 base year (percentages are rounded):

- SOV: 82%
- HOV: 9%
- Walk and Bike: 3%
- Transit: 7%

POLICIES

Policy T-10: Implement transportation demand management (TDM) programs to support mixed-use development, commercial centers, and employment areas, and to reduce disruptive traffic impacts.

Policy T-11: Through investments in non-motorized facility connections, collaboration with transit providers, and commute trip reduction programs with employers, encourage a reduction in drive alone work trip shares to below 75% by 2035 within the Regional Growth Center.

Policy T-12: Invest in and maintain Renton's Intelligent Transportation Systems (ITS) Program coordinated with other agencies.

Policy T-13: Incorporate TDM measures such as priority parking places for HOVs and convenient, direct pedestrian access from transit stops/stations in site design and layout for all types of development.

Policy T-14: Educate employers about their commute trip reduction obligations under the City of Renton's Commute Trip Reduction (CTR) Ordinance and CTR Plan.

Policy T-15: Regularly review and refine parking ratios to account for existing parking supply, land use intensity, and access to transit.

Policy T-16: Encourage shared and structured parking in downtown Renton to achieve land use and economic development goals as expressed in the City Center Community Plan and to coordinate

parking for the benefit of the district businesses and residents.

STREET NETWORK

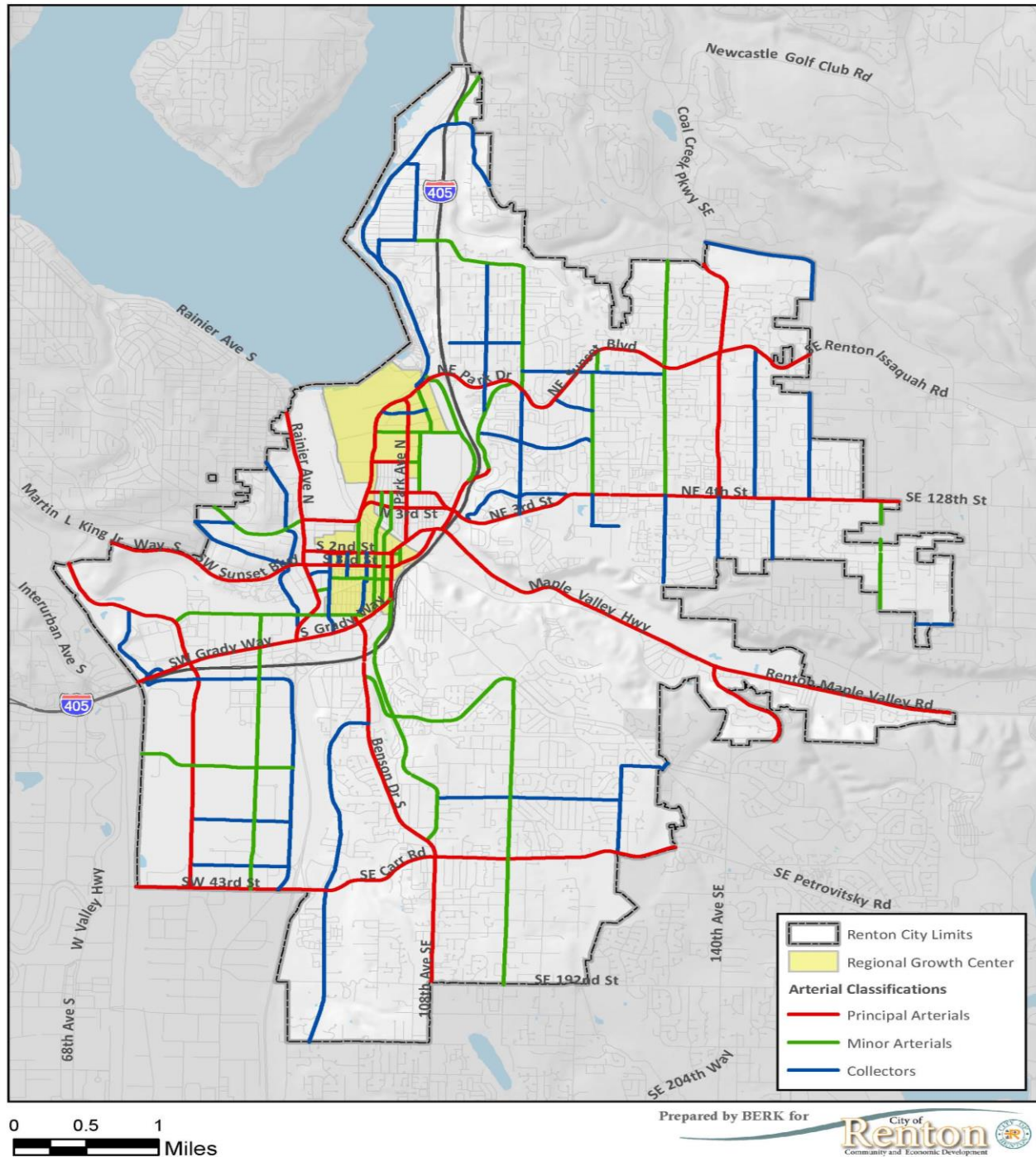
INVENTORY

State highways such as I-405, SR-900 (Sunset Boulevard), SR-169 (Maple Valley Highway), SR-515 (Benson Highway), and SR-167 (Rainier Avenue) are integral elements of Renton's arterial system as well as routes for regional commuters. These five interstate, freeway, and state highways converge in central Renton within a half mile radius of each other. This results in a complex traffic flow as regional and local trips interact within a relatively short distance. Local arterial streets link commercial, industrial, and residential neighborhoods to the freeways and state highways. Within neighborhoods, local access streets provide internal circulation and connections to the arterials. Local access streets primarily provide direct access to abutting land uses and are designed to discourage through traffic.

Arterials in the City of Renton are divided into three classifications that are used to identify appropriate uses, establish eligibility for road improvement funding, and define appropriate street design standards:

- **Principal Arterials** – streets and highways that connect major intra-city activity centers and have high traffic volumes and relatively fast vehicle speeds. The focus is on through travel instead of property access.
- **Minor Arterials** – streets that provide links between intra-city activity centers or between principal and collector arterials. Minor arterials carry moderately high traffic volumes and vehicle speeds are typically lower than principal arterials.
- **Collector Arterials** – streets that distribute traffic between local streets and principal or minor arterials and provide circulation within commercial, industrial, or residential areas. The collector system distributes traffic to local streets to support property access.

Figure T-1: Conceptual Arterial Streets





Generally, local access streets include all public streets not classified as principal, minor, or collector arterials. A conceptual arterial map is shown in Figure T-1. Annually, the City adopts an Arterial Streets map displaying the three arterial categories above. The City hereby incorporates by reference its Arterial Streets Map dated August 4, 2014, Resolution 4222, or as thereafter amended, into this Transportation Element. The City has adopted more specific street classifications in the Renton Sunset area.

The transportation element seeks to balance local and regional mobility needs. The following policies and priorities address issues related to the street network as a system, the physical design of individual roadways, traffic flow, and traffic operations control. The intent is to reduce the amount of traffic on City streets that has neither an origin nor destination in the City of Renton while providing reasonable levels of traffic flow and mobility for users of the local street system.

POLICIES

Policy T-17: Work with the State and neighboring jurisdictions to provide capacity on regional transportation systems and to reduce regional traffic on local streets.

Policy T-18: Increase the person-carrying capacity of the Renton arterial system by encouraging modes that allow more people per vehicle and by discouraging single occupancy vehicle usage.

Policy T-19: Adopt and implement street standards based on assigned street classification, land use objectives, and user needs.

Policy T-20: Arrange the street network in a grid pattern to the extent possible. Connect internal development networks to existing streets and avoid cul-de-sacs and dead end streets.

Policy T-21: Support vacating streets when they meet the criteria in Renton Municipal Code, Chapter 14, Vacations.

Policy T-22: Review new developments fronting on state highways in the City in accordance with WSDOT access standards for state managed access highways.

PEDESTRIAN AND BICYCLE TRANSPORTATION

Investments in the non-motorized components of the City's transportation system enhance the quality of life in Renton, improve walking and bicycling safety, support healthy lifestyles, and support pedestrian and bicycle transportation modes as alternatives to the use of automobiles. Non-motorized facilities serve commuters and recreational users.

INVENTORY

The City's existing non-motorized transportation system is comprised primarily of roadside sidewalks. These facilities provide safe non-motorized mobility for pedestrians and cyclists outside of business districts. Within business districts, sidewalks are restricted to pedestrians. Many streets were constructed before the existing code requiring sidewalks was enacted; as a result, numerous local and arterial roadways are currently without sidewalks. Some notable walkway deficiencies exist along sections of Maple Valley Highway (SR-169), Puget Drive, and Talbot Road South. The *City of Renton Comprehensive Citywide Walkway Study* (March 2008) addresses the sidewalks and walkways within the City and identifies a priority roster to construct "missing" sidewalk/walkway sections throughout the City.

In addition to sidewalks, Renton has combined bicycle/pedestrian facilities along Logan Avenue and portions of Garden Avenue North and North 8th Street, and striped bicycle lanes on portions of Southwest 16th Street, Oakesdale Avenue Southwest, Duvall Avenue NE, and NE 4th Street. The *Renton Trails and Bicycle Master Plan* (2009) lists routes that have been identified as important bicycle transportation elements.

The *City of Renton Parks, Recreation, and Natural Areas Plan* (November 2011) provides an in-depth description of proposed walking, bicycle, and

mixed-use trails. By nature, these types of trails are primarily used for recreational purposes and supplement the City's non-motorized transportation system; their development should be encouraged.

FUTURE PLANS

Renton's existing transportation system is oriented towards accommodating cars, trucks, and buses rather than pedestrians or bicycles. The policies and priorities of this section provide guidelines for reevaluating the existing system and making incremental improvements in the City's walking and biking environment. More facilities are also needed for bicycle storage and parking in shopping areas, employment centers and in public places. Specific recommendations on improvement projects are included in the *Renton Trails and Bicycle Master Plan* (May 2009) and hereby incorporated by reference into this Transportation Element.



Cedar River Trail, Renton Trails and Bicycle Master Plan 2009

POLICIES

Policy T-23: Coordinate transportation planning activities with the *Renton Trails and Bicycle Master Plan* and the *Parks, Recreation, and Natural Areas Plan*.

Policy T-24: Enhance pedestrian and bicycle movement and safety by:

- 1) Providing adequate separation between non-motorized and motorized traffic;

- 2) Separating foot and bicycle traffic when possible, but giving preference to foot traffic when necessary;
- 3) Improving arterial intersection crossings for non-motorized users;
- 4) Minimizing obstructions and conflicts that restrict the movement of non-motorized users; and
- 5) Providing convenient access to all transit stops and transit centers.

Policy T-25: Develop and designate appropriate pedestrian and bicycle commuter routes along minor arterial and collector arterial corridors.

Policy T-26: Ensure provision of safe and convenient storage and parking facilities for bicyclists.

Policy T-27: Promote non-motorized travel not only as a viable means of transportation but as an important method for maintaining overall health and fitness.

TRANSIT AND HOV

As Renton's population continues to grow, there is a greater need to move people efficiently on the local roadway network. A well-managed, attractive, and convenient transit system reduces traffic demand by encouraging the use of alternatives to single-occupancy vehicles, for trips within the city limits and for trips to regional destinations. The following policies and priorities seek to maximize the use of transit and other alternatives to single-occupancy vehicles in Renton.

INVENTORY

The Downtown Renton Transit Center is the hub of transit service in Renton. The Transit Center acts as both a destination and a major transfer center. Bus service in Renton is currently provided by King County Metro and Sound Transit.

Metro provides internal city routes and regional service. Local transit service includes RapidRide, buses, shuttles, and Dial-a-Ride (DART). The RapidRide F-line connects The Landing and Boeing plant with Downtown Renton, Tukwila, SeaTac, and Burien. It connects with the regional Sounder (commuter rail) and Link Light Rail systems. As of



2014, Renton has over 1,100 park and ride spaces located throughout the community to serve local commuters.

High Occupancy Vehicle (HOV) lanes, available to buses and vehicles with two or more occupants, currently exist north and southbound on Interstate 405 and SR-167. HOV queue jump lanes are provided at some interchange ramps in Renton. Rainier Avenue has business access and transit only (BAT) lanes.

FUTURE PLANS

VISION 2040 and Transportation 2040 call for channeling future growth into regional growth centers such as Renton and providing transit links between centers. Transit investments are critical to providing local and regional trip alternatives to single-occupancy vehicles.

Transit service and facility improvements are needed to support and encourage increased transit use in the City of Renton. Renton has been and will continue to work with King County Metro and Sound Transit to develop transit system service improvements (e.g., new routes, increased frequency) and capital investments (e.g., signal queues, park and ride facilities) to adequately serve Renton's developing residential and employment areas.

Specific transit service improvements and facilities are needed to support Renton's role as a regional center. The City hereby incorporates by reference:

- 1) King County Metro's Strategic Plan for Public Transportation 2011-2021, or as thereafter amended, and
- 2) Sound Transit's Sound Transit 2 (ST2) Plan as adopted by the agency in 2008, or as thereafter amended.

The City is very supportive of Sound transit's proposal to add Bus Rapid Transit (BRT) to the I-405 corridor, including direct HOV ramps at a new interchange at NE 8th Street.

Planned HOV facility investments, such as HOV lanes or intersection queue jumps, are planned in several Renton corridors and direct access HOV

interchange ramps are planned at the following locations between 2015 and 2020:

- SW 43rd Street/Carr Road/Petrovitsky Road Corridor Improvements: Implement adaptive signal control system (ACSC) along corridor which also will support transit operations. The system may be expanded to include transit signal priority if King County Metro would provide a BRT route to the corridor.
- NE 3rd/NE 4th Corridor Improvements: Implement projects at locations along this arterial corridor to improve traffic operations including revising/adding turn lanes, access management, and traffic signal modifications. Projects will upgrade pedestrian and bicycle facilities. Project to consider transit signal priority enhancements and queue jump lanes to improve transit reliability.
- NE Sunset Boulevard (SR 900) Corridor Improvements from I-405 on the west to the east City limits: Reconstruct arterial to enhance pedestrian and bicycle facilities and transit facilities/develop street to latest adopted Principal Arterial street standards. The City is also discussing extension of BRT to this corridor, which would connect the Sunset Area with The Landing, Boeing, and other employment centers.
- Grady Way Corridor Improvements from Lind Avenue to Main Avenue: Reconfigure traffic lanes and add turn lanes and other traffic signal improvements to enhance traffic operations and transit reliability.
- These HOV investments will improve transit travel time, accessibility and reliability and contribute to a reduction in congestion and pollution by proving and attractive alternative to the single occupant vehicle.

POLICIES

Policy T-28: Work with other jurisdictions and transit authorities to plan and provide frequent, coordinated and comprehensive transit service and facilities in residential and employment areas.

Policy T-29: Support direct HOV ramps to/from I-405 in the vicinity of The Landing (NE 8th) per the City Center Community Plan.

Policy T-30: Work to improve the frequency and reliability of transit serving Renton's Downtown and promote the Downtown Transit Center as part of a regional high capacity transit system.

Policy T-31: Increase transit service and access in commercial and mixed use corridors and nodes.

Policy T-32: Coordinate transit, bike and pedestrian planning efforts and evaluate opportunities to leverage investments for the benefit of more users.

Policy T-33: Construct improvements and implement actions to facilitate the flow of HOV's into, out of, and through Renton.

Policy T-34: Support exclusive freeway/arterial HOV facilities that improve transit travel times by enabling buses to bypass congestion.

Policy T-35: Allow park-and-ride facilities in appropriate locations subject to design considerations.

TRANSPORTATION OPTIONS AND MOBILITY

As described in Renton's Community Needs Assessment (2014) and Housing Element, lack of mobility creates obstacles for individuals and families to access the services they need. Lack of mobility and transportation services can limit a household's ability to obtain basic goods and services, receive medical or dental care, commute to a job, and maintain employment. Current barriers to mobility in Renton include:

- Uneven access to public transit, with limited options for those who do not live downtown, do not commute during peak travel times, or who need to travel within Renton (instead of between Renton and other destinations in the region). The most vulnerable groups include

low-income households that are unable to afford vehicle ownership, as well as residents whom are unable to drive.

- Elderly residents and others with physical with personal mobility issues also face the challenge of not being able to walk longer distances to and from a bus stop, further limiting their opportunities to use public transit.
- Many pedestrian and bike routes connecting Renton's residential areas with basic services are unsafe, which further limits transportation alternatives for households without an automobile.



F-Line Rapid Ride, Credit: City of Renton

POLICIES

Policy T-36: Invest in connection of non-motorized facilities across Renton. Provide improvements at intersections to improve safety and comfort of pedestrians and bicyclists.

Policy T-37: Support transit agencies' investment in transit service to Renton neighborhoods within and beyond Downtown.

Policy T-38: Develop a connected transportation system that provides opportunities for mobility of people with special needs.

GROWTH STRATEGY, LAND USE AND TRANSPORTATION

Renton has been designated a Core City and has a Regional Growth Center called the Renton Urban Center. Renton's adopted Urban Center boundary includes two primary sections: the northern portion



borders Lake Washington and emphasizes mixed use and regional employment, including Boeing's Renton Plant and The Landing, a retail and residential development; the southern portion of the center includes the downtown core and adjacent residential area.

The City is obligated to meet the 2031 Growth Targets contained in the King County Countywide Planning Policies, and much of its growth capacity is in mixed use zones such as the Central Business District (CBD). The City must also estimate its growth to the year 2035 to provide the required 20-year planning period under GMA. Table T-1 shows the City's growth targets, capacity, and transportation model assumptions.

Table T-1: Growth Targets

	Housing Target	Employment Target
2012-2035 Growth Target per 2014 Buildable Lands Report		
	14,050	28,755
Growth Capacity Estimated 2012 BLR and Land Use Element Update		
	15,351-16,741	26,090-31,076
Transportation Model Assumptions		
	16,741	31,076

Sources: King County, Puget Sound Regional Council, BERK Consulting 2014

The City has tested the future land use, desired mode split, and planned transportation improvements in the City's transportation model. The model results show that the projected growth can be supported by the City's planned improvements, and the City's level of service policies (see Policy T-48) can be met. The model tested Renton's planned growth and improvements in the context of regional growth and networks consistent with Puget Sound Regional Council's VISION 2040 and Destination 2040 plans.

Testing Renton's planned growth and improvements, shows the following summary model results in selected corridors:

- SW 43/Carr/Petrovitsky Corridor: Planned physical improvements to intersections and lanes together with adaptive signal control system (ASCS), and the LOS E Mitigated designation per policies, are appropriate.
- Grady Way: Planned improvements would improve operations even in areas of projected continued congestion.
- 156th Avenue NE Corridor: Three lanes should suffice through 2035 modeled conditions. The 142nd/156th intersection with a signal and turn lanes are projected to work well.
- SR 169: Interim improvements are possible and desirable at SE 5th at SR 169, such as striping/signing/operations changes. The State's Route Development Plan improvements, included in the Renton Transportation Element list of projects (Appendix A), are needed.
- Houser Way at Lake Washington Boulevard: Projects 3 and 5 (Appendix A) would address projected traffic.
- 192nd Extension over SR 167: This new road would likely pull traffic off of the SW 43rd Overcrossing of SR 167, but would not eliminate the need for widening the overcrossing.

More detailed transportation analysis of planned improvements would occur through the design process.

POLICIES

Policy T-39: Provide multimodal transportation improvements that support land use plans and are compatible with surrounding land uses.

Policy T-40: Plan, design, and operate streets to enable safe and convenient access and travel for all users including pedestrians, bicyclists, transit riders, and people of all ages and abilities, as well as freight and motor vehicle drivers, and to foster a sense of

place in the public realm with attractive design amenities.

Policy T-41: Plan for land use densities and mixed-use development patterns that encourage walking, biking and transit use in designated areas.

Policy T-42: Continue to implement the following design guidelines in Renton’s Regional Growth Center:

- Encourage a mix of complementary land uses.
- Encourage compact growth by addressing density.
- Link neighborhoods, and connect streets, sidewalks and trails.
- Complete missing links and connections in the pedestrian and bicycle systems.
- Integrate activity areas with surrounding neighborhoods.
- Locate public and semipublic uses near Renton’s transit center(s).
- Design for pedestrians and bicyclists.
- Provide usable open spaces such as the Renton Piazza, Burnett Linear Park, Cedar River Trail, and others.
- Manage the supply of parking.
- Promote the benefits of on-street parking.
- Reduce and mitigate the effects of parking.

Policy T-43: Prioritize multimodal transportation investments in Renton’s Urban Center.

LEVEL OF SERVICE STANDARDS, DESIGN, AND CONCURRENCY

Transportation concurrency – ensuring the programs, projects, and services needed to serve growth are in place when or soon after growth occurs – is a key requirement of the Washington State Growth Management Act (GMA). The City established the following objectives for its multimodal concurrency system:

- Meet requirements of GMA and be defensible
- Be meaningful to measure transportation system versus development
- Be simple to explain

- Be simple and cost efficient to implement and monitor
- Incorporate other travel modes
- Be receptive to various transportation demand management (TDM) and parking strategies
- Consider the potential for different standards for different parts of the City
- Help fund/implement multimodal transportation improvements
- Provide a basis for interjurisdictional coordination on transportation

Following a review of different systems and methods, the City developed a multimodal LOS and concurrency system for the following modes of travel meeting the objectives:

- motor vehicles (single- and multi- occupancy)
- transit
- non-motorized (bicycle and pedestrian)

The multimodal LOS system addresses the following scales: 1) citywide, 2) community planning area, and 3) development level.

The primary component of the system is a plan-level estimate of person trips by mode based on the land use forecasts. Person trips are the number of persons making trips by various modes of travel. Bicycle and pedestrian trips typically involve one person, thus one person trip. But motor vehicles often have more than one occupant. For example, if the average vehicle occupancy was 1.3, and a concurrency service area (like a community planning area) had 1,000 p.m. peak vehicle trips, the person trips would be 1,300. Similarly, if a transit vehicle carries 65 passengers, there would be 65 person trips. Using person trips provides a common metric for use in concurrency and also assessment of transportation impacts or mitigation fees.

To ensure that growth is occurring in a pattern and intensity proposed by the Land Use Element, the person trips could be tracked by consolidated Community Planning Areas that share a common



circulation system and that do not place undue administrative burden.

The last component of the LOS program is at a development scale. Applicants for development would need to provide an analysis of the effect of their proposed development on safety, operations and local access considering a measurement of delay per vehicle of LOS D or LOS E mitigated using Highway Capacity Manual definitions. See Table T-2 for a description of the key steps in the LOS/Concurrency system.

LOS standards guide the types of street, pedestrian, bicycle, and transit improvements needed to meet planned levels of growth. The list and map of planned transportation system improvements are presented in Appendix A.

The transportation system's quality of design, sensitivity to human needs, and integration with the surroundings impact the City's urban character and quality of life. Transportation improvements should be designed accordingly.

Table T-2: LOS/Concurrency Program

Program Component or Characteristic	Attributes
Person Trips	Person trips are the number of persons making the same trip in the same mode of travel. Using person trips provides a common metric for use in concurrency and also impact or mitigation fees.
Multimodal Levels of Service	Person trips will be calculated for the following modes of travel: <ul style="list-style-type: none">• motor vehicles (single- and multi- occupancy)• transit• non-motorized (bicycle and pedestrian)
Multiple Service Areas	The City will monitor trip banks to specific service areas, such as consolidated Community Planning Areas, that reflect differences in transportation opportunities, needs and capacities, as well as differences in existing and future land uses. However, the City will determine system needs and collect fees at a citywide scale in order to preserve the City's flexibility to prioritize projects, and to avoid creating smaller accounts that do not collect enough to fund any projects before the legal deadlines to spend the money or refund it.
Trip Calculator, Fee Calculator, Trip Bank	Applicants will provide the type(s) of land uses they will develop, and the number of units they propose for each type (i.e., # of apartments, or # of square feet of retail, office, etc.). The Trip Calculator will convert the applicant's data to the number of person trips in their service area using trip generation rates. The trip calculator results will be used for concurrency by comparing the applicant's person trips to the balance available in the trip bank for each mode. The trip calculator results will be used for fee calculations by multiplying the applicant's person trips for each mode times the fee per trip for each mode.
Multimodal Mitigation Fees	A separate SEPA-based mitigation fee schedule will collect each applicant's proportionate share of their direct impact on the other modes of travel. Strategies such as TDM and parking can earn credits that reduce the mitigation fees.
Safety, Operations and Local Access Analysis	Applicants for development will be required to submit an analysis of the effect on their proposed development on safety, operations and local access using guidelines outlined in the City of Renton <i>Policy Guidelines for Traffic Impact Analysis for New Development (Revised May 9, 2013)</i> .



POLICIES

Policy T-44: Ensure adequate transportation facilities are in place at the time of development approval or that an adopted strategy is in place to provide adequate facilities within six years.

Policy T-45: Ensure that new development contributes its fair share of the cost of transportation facilities, programs and services needed to mitigate growth related transportation impacts.

Policy T-46: Maintain a multimodal level of service that maximizes mobility, is coordinated with level of service standards of adjacent jurisdictions, and meets concurrency requirements.

Policy T-47: Incorporate multiple transportation modes in concurrency determinations.

Policy T-48: Apply the following multimodal LOS standards at a citywide level, community planning area level, and development level:

- A. Citywide Person Trips:** Based on the City's land use and growth strategy, establish a citywide level of person trips by mode, and support each mode with capital improvements and programs. The general mode categories include: motor vehicle trips, transit trips, and non-motorized trips.
- B. Community Planning Area Trips:** Through the concurrency review process, track person trips by the following areas to monitor if growth is occurring in relation to the Land Use Element and planned Transportation and Capital Facility Plan investments. If growth is occurring in a different pattern than planned, consider the effect on operational LOS and determine if the Comprehensive Plan land use, LOS or capital investments should be amended.
 1. West Hill/City Center/Cedar River Community Planning Areas
 2. Valley Community Planning Area
 3. Talbot/Benson/Fairwood Community Planning Areas
 4. Kennydale/Highlands/East Plateau

Community Planning Areas

5. Adopted planned action areas: Track vehicular trips per City-adopted Planned Action ordinances
- C. Operational LOS:** Though the SEPA review process, apply the following operational LOS standard at intersections that could be impacted by a proposed development:
 1. **Arterials and Collectors:** Except as listed in C.2, apply a standard of LOS D.
 2. **Alternative Arterial and State Route LOS:** Apply a standard of Level of Service E Mitigated for the following:
 - **Specific Corridors:** Carr Road, Logan Avenue, Rainier Avenue, Grady Way, SR 900 and SR 515.
 - **Centers:** Renton Urban Center and Center Village
 - For the above Corridors and Centers, Congestion should be mitigated (such as increasing transit or other modes) when the p.m. peak hour LOS falls below LOS "E."

Policy T-49: Encourage development that can be supported by transit and other non-single occupant vehicle modes.

Policy T-50: Design transportation facilities to fit the neighborhood context. Apply urban design principles.

Policy T-51: Support continued development of the 27th/Strander Corridor into Tukwila.

FREIGHT

Safe and efficient movement and distribution of goods is important for attracting and retaining businesses in the City of Renton.

INVENTORY

Truck and rail freight are important to the regional and local economy. *The Washington State Freight Mobility Plan* (2014), hereby incorporated by reference, identifies T-1 freight corridors (those



carrying more than 10 million tons per year), T-2 freight corridors (carrying 4 to 10 tons per year), and other freight routes within the City that are important to the state economy. Figure T-2 also identifies the state designated freight routes.

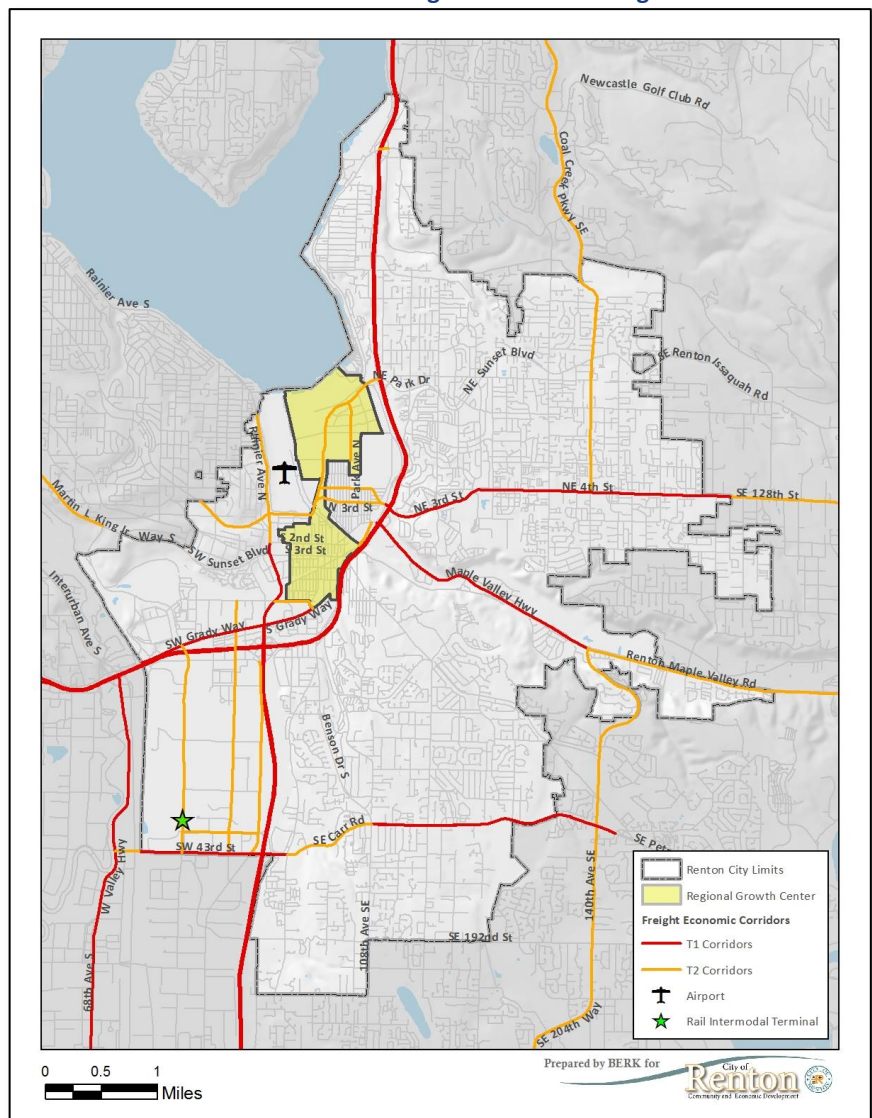
The City has a system of truck routes for trucks weighing over 26,000 pounds gross vehicle weight. In accordance with the City's truck route ordinance, trucks needing to make deliveries off of the designated truck routes are required to take the most direct arterial route to/from one of the designated truck routes and to combine multiple trips off designated truck routes when feasible. The truck route ordinance does not apply to the operation of school buses or public transit on designated routes, garbage trucks, city maintenance vehicles, or emergency vehicles.

Freight rail service is currently available to several industrial and commercial areas of the City. Existing rail lines bordering the City of Renton include the Union Pacific (UPRR) and Burlington Northern Santa Fe Railroad (BNSF) main line tracks between Seattle and Tacoma. The BNSF main line runs in a north-south direction and is located along the City of Renton's western city limits, separating Renton from the City of Tukwila. The BNSF main line carries a considerable volume of freight service, as well as passenger service. Two spur lines provide intermittent, as-needed freight service from the main line to the Renton Valley industrial area (southwest Renton) and the Container Corporation of America plant in the Earlington industrial area. The BNSF 18th Subdivision Branch Line splits from the BNSF main line at the Black River Junction, and continues through

downtown Renton and the North Renton industrial area before continuing along the east side of Lake Washington and terminating in south Bellevue. Spur tracks off of the branch line provide freight service to the Earlington industrial area in west central Renton. Two spur tracks serve the North Renton industrial area north of downtown Renton.

The UPRR mainline track, located 200 to 300 feet west of the BNSF mainline and Renton's City limits, also runs in a north-south direction. The UPRR mainline is a single track, carrying a somewhat lower level of freight-only service.

Figure T-2: State Freight Routes in Renton



The infrequent use of the spur tracks and branch lines within city limits results in minimal disruption to vehicular traffic movement in Renton. Future land use development is not anticipated to result in a significant increase in rail freight service in Renton.

The following policies and priorities seek to balance the needs of freight (trucks and trains) with the needs of other users of the local street network.

Policy T-52: Work with local, regional, state and federal agencies to address regional freight needs and mitigate local impacts.

Policy T-53: Maintain and improve freight access to and from Renton industrial areas.

Policy T-54: Minimize the impact of freight traffic on transportation facilities and general traffic circulation.

Policy T-55: Limit heavy through truck traffic to designated truck routes.

Policy T-56: Support railroad crossing improvements that minimize maintenance and protect the street surface. Where warranted, provide protective devices, such as barriers and warning signals, on at-grade crossings.

AIRPORT

The Renton Municipal Airport is a major general aviation airport and a designated Reliever Airport for SeaTac International Airport in the Federal Aviation Administration's National Plan of Integrated Airport Systems.

Both federal and state governments recognize its importance as part of the transportation system and require the City to protect and maintain it so that it can be used safely. Renton's Airport is more than a transportation facility. It is a vital element to Renton's commercial and industrial economy, providing aircraft services, manufacturing support, flight training, and other airport activities. The airport is a self-sufficient enterprise fund within the City's operations.



Seaplane at Renton Municipal Airport, Credit: City of Renton

According to the 2012 WSDOT Aviation Economic Impact Study, four airports in Washington State account for the greatest economic impact:

The most significant overall finding is that the statewide economic impacts attributable to airports are substantial, but heavily concentrated in just four facilities - the three major Boeing activity centers (Paine Field, Boeing Field, and Renton Municipal) and Sea-Tac, which is the principal commercial airline hub in the state and ranked 17th nationally in terms of annual enplanements

Combined, they account for 91% of total jobs and 95% of total statewide output attributable to individual airport activity. Each of these facilities is estimated to support at least 10,000 jobs and more than \$5 billion of economic activity.

INVENTORY

The Renton Municipal Airport is owned by the City of Renton. The Airport consists of approximately 165.5 acres; it has one runway with two parallel taxiways.

The runway, running southeast to northwest, is 5,379 feet long and 200 feet wide. It is equipped with medium intensity runway lighting, runway end identification lighting (REIL), and precision approach path indicators (PAPI). Taxiways are lighted, and there is a rotating beacon, a windsock, and a non-directional radio beacon. The Federal Aviation Administration operates a contracted Air Traffic



Control Tower year round during established hours (generally 7 a.m. to 8 p.m.).

The Renton Airport serves general aviation demand (aviation uses except scheduled commercial passenger airlines) generated by Renton, Boeing, and other communities generally within a 30-minute drive. Aircraft services available at the Airport include aircraft maintenance and service, fuel, flight instruction, aircraft charter and rental, and aircraft storage. Fixed base operators (FBO's), which are aviation-oriented businesses offering a variety of services and products to aircraft owners and operators, provide these services to the aviation public.

Contiguous to the Renton Airport is the Will Rogers-Wiley Post Memorial Seaplane Base, which during the summer months is one of the busiest seaplane bases in the Northwest.

The Renton Municipal Airport is a Landing Rights Airport, with US Customs services available for both floatplane and wheeled aircraft arriving by water or by land.

FUTURE PLANS

The Airport Layout Plan (2009) establishes future development and improvement priorities and timelines that will yield a safe, efficient, economical, and environmentally acceptable public facility with capacity for the future air transport needs of the City of Renton and the Puget Sound region.

The number of aircraft and the number of operations are projected to grow only modestly in the coming decades; however, the region has a large unmet need for hangars for aircraft storage.

The airport has begun a comprehensive Master Plan update scheduled to be completed in the spring of 2016.

POLICIES

Policy T-57: Acknowledge that there are certain impacts to the community associated with the existence of the Renton Municipal Airport, such as noise generation, but that these impacts have historically been accepted by the community in exchange for the economic and transportation-

related benefits and the civic prestige that are also associated with the Airport.

Policy T-58: Recognize the regional significance of the Airport for economic development.

Policy T-59: Maximize available space on the Airport site for uses that require direct access to taxiways and runways.

Policy T-60: Continue operation of the Airport as a Landing Rights Airport.

Policy T-61: Recognize the benefit of Airport access for emergency medical and disaster response in the community.

Policy T-62: Promote and develop Airport facilities and services for all wheeled and float-equipped aircraft, owners, pilots, and passengers in a manner that maximizes safety, efficiency, and opportunity for use.

Policy T-63: Lease Airport property for aviation-related uses that create jobs and expand the City's tax base.

Policy T-64: Maintain the northern shoreline of the Airport as the only major publicly-owned seaplane access and protect its use for that purpose.

Policy T-65: Develop appropriate land use plans and regulations for structures and vegetation within the Airport's runway approach zone.

FINANCE, INVESTMENT AND IMPLEMENTATION

This section contains details of transportation revenue sources that the City can reasonably expect to receive during the life of the transportation plan. Revenue sources contained in the Financial Program vary widely in terms of the amounts available and the types of projects for which they may be used. In most cases, individual transportation projects are funded by a combination of funding sources, reflecting the fact that transportation projects have multiple purposes and serve multiple beneficiaries.

TRANSPORTATION IMPROVEMENTS

Appendix A: Transportation Improvement Projects and Programs, summarizes the City of Renton's identified multimodal roadway system improvements needed to address capacity and operational issues based on the forecast travel demands. The project table and map, which constitute Appendix A, include a project number for reference. The table is generally organized by Community plan area, starting with the Kennydale Planning Area in the north part of the City.

In addition, the table includes programs covering pedestrian and bicycle travel consistent with the City's other adopted plans, such as the *Renton Trails and Bicycle Master Plan* (May 2009). Programs covering preservation, traffic operations and ITS, safety, and transportation project development are also included. Without programs addressing these items, the City's existing infrastructure will be less efficient and ultimately will cost more to reconstruct transportation facilities.

Key improvements from other agencies including WSDOT, Sound Transit, King County, and adjacent cities are also included in the list to illustrate the interdependence of Renton's transportation element within the regional and sub-regional framework.

To better support use of alternative travel modes, most of the identified roadway improvements include facilities for pedestrians, and others also include improvements for bicycle travel and improving transit service reliability. The roadway projects focus on improving traffic safety and operations along major corridors. These include adding turn lanes (including center, two-way left-turn lanes) and upgrading traffic signals at major intersections. These include projects along Lake Washington Boulevard, Sunset Boulevard, Grady Way, Carr Road/Petrovitsky Road, and 116th Avenue SE. In addition to the listed corridor projects, the traffic operations and ITS program provide for adjusting the traffic signal phasing and operations at signals throughout the city.

The only project that adds additional travel lanes for a significant distance is the widening of Monster Road between Oakesdale Avenue and Martin Luther King Jr Way (SR 900). This project completes the 4/5 lane arterial corridor and would be constructed in partnership with King County.

The Transportation Element also incorporates improvement projects from the Community Plans and other planning studies. These include the plan to convert the one-way roadways in downtown Renton to two-way operations to support the vision identified in the City Center Community Plan. In addition, the Transportation Element includes the key transportation improvements identified in the Sunset Area Community Planned Action Study, and the Benson Hill Community Plan.

TRANSPORTATION PROGRAM COSTS

In emphasizing multiple travel modes, this plan requires resources to be spread and balanced among all modes. Many of the identified improvement project address multiple travel modes in an integrated manner. The City of Renton cost of funding the transportation improvement projects and programs described in previous sections for the next 21 years (2015-2035) is estimated at approximately \$617 million (2015 dollars). In addition, the City's Transportation Element relies on WSDOT, Sound Transit, King County Metro and other agencies to fund and implement regional and sub-regional transportation improvement projects, as identified in Appendix A. Ongoing transportation planning work will include continued refinement of the 20-year transportation plan and costs.

As shown in Table T-3, \$422 million (68%) of the City's transportation costs are for multimodal transportation improvement projects in key corridors throughout the City. Pedestrian, bicycle, and trail projects are estimated to cost \$102 million based on the current plans. The remaining \$93 million is needed to fund ongoing operations, including street overlays, system preservation, traffic signal, signs, implementation of Intelligent



Transportation Systems (ITS) and overall administration and development of projects.

Table T-3: Summary of 2015-2035 Transportation Costs

Type of Project	Costs (1,000s)
Roadway Projects	\$ 422,000
Non-Motorized Projects and Programs	\$102,000
Preservation, Safety, ITS, and Project Development Programs	\$93,000
TOTAL Costs	\$ 617,000

INVENTORY OF FUNDING SOURCES

Having established a 20-year transportation funding level of \$ 617 million, an annual average funding level of approximately \$30 million would be needed to fully implement the Transportation Element by 2035. Sources of revenue to provide this annual funding need are identified on Table T-5. The forecast revenues are based on historical data extrapolated out to 2035. From existing transportation revenue sources, the City would be expected to generate \$240 million from 2015-2035. This is approximately 40% of the total estimated costs of the 21 year list of transportation projects and programs.

Table T-4: Summary of 2015-2035 Transportation Revenues

Existing Revenue Sources	Costs (1,000s)
Grants	\$119,000
Business License Fees	\$52,000
Fuel Taxes	\$51,000
Transportation Impact Fees and Sidewalk Mitigation Payments	\$18,000
TOTAL Revenues	\$240,000

Existing revenues are not able to keep pace with transportation costs for several reasons. They include:

- Declining revenue available from several existing sources, such as the half-cent gas tax and grants;
- Transportation needs and costs growing faster than available revenues;
- Local, state, and federal requirements on transportation improvements lengthening the design process and increasing cost;
- Increased needs for preservation of the existing infrastructure;
- Additional focus on incorporating complete streets concepts into transportation projects which adds costs due to right-of way and street standards;
- The undetermined potential for new funding sources; and
- The continued inability of regional agencies to address regional transportation needs.

Ongoing transportation planning work will include a review and update of current revenue sources to reflect federal, state, and regional decisions regarding these revenue sources. Should the City's transportation funding approach result in shortfalls, the City will reassess its land use plan, level of service standards, and funding strategies, accordingly.

To help address this shortfall in funding, the City is considering two new funding sources and potential future modifications to the existing Transportation Impact Fee (TIF) program rates.

- **Transportation Benefit District (TBD)** – The City is evaluating the potential for establishing a TBD, as allowed under state law. Without a vote of the City residents, a TBD could be based on a \$20 assessment on the Motor Vehicle Excise Tax (MVET). This could generate over \$30 million over the life of the plan if implemented starting in 2016. State law allows the City to enact up to a \$100 MVET through a vote of residents. A \$100 MVET could raise \$8 million a year if

approved. The City would likely target the TBD to help provide more consistent funding for preservation of the transportation system and possibly some key non-motorized projects.

- Non-motorized concurrency Impact Fee –** The City’s current TIF program is focused on improvements that add capacity to roadways and streets that serve growth, consistent with state law. With the increased focus on completing key segments of the sidewalk, bicycle, and trails system, the City is considering a supplemental mitigation fee that would cover those modes. This mitigation payment would be integral to the multi-modal concurrency program. Specific rates and projects/costs are yet to be fully defined and would be adopted as part of a subsequent change to the City’s existing concurrency requirements (RMC 4-6-070). Preliminary estimates suggest such a program could generate approximately \$8 million for separate pedestrian, bicycle, and multi-use trail projects. The costs of the non-motorized projects would not overlap with costs included in the impact fee program.
- Transportation Impact Fee –** The City revised its TIF in 2011. As part of that update, the City set the TIF rate per new PM peak hour trip well below the maximum rate developed in the Rate Study (Rate Study for Impact Fees”, City of Renton, August 26, 2011) With adoption of the 2015 Transportation Element and project list, the City will need to review and update the TIF program and ordinance to be internally consistent. At that time, the City could choose to set the TIF rates at a higher (or lower) level, which could affect the ability to complete the growth-related street and roadway projects.

This Element provides a summary of six and 20-year transportation system proposals (see Level of Service Standards, Design, and Concurrency) needed to support the land use plan. The City has developed a six-year Transportation Improvement

Program (TIP) that details projects and funding by year for 2015-2020, and is hereby incorporated by reference. The full 20-year multimodal project list, summarized in Appendix A, is also incorporated by reference.

POLICIES

Policy T-66: Ensure the transportation system funding and implementation program supports land use policies and distributes transportation costs equitably.

Policy T-67: Pursue federal, state and local sources of funding (e.g. loans, matching funds) for transportation improvements in an efficient and equitable manner.

Policy T-68: Use business license fees and impact fees charged to new development to fund growth related traffic improvements.

Policy T-69: Coordinate equitable public/private partnerships to help pay for transportation improvements.

Policy T-70: Seek opportunities for multi-jurisdictional cooperation to fund transportation improvements (e.g. joint transportation mitigation systems or funding mechanism to address impact of growth outside municipal boundaries on the City’s transportation system).

Policy T-71: Expedite implementation of transportation projects that protect neighborhoods against the impacts of through traffic, improve HOV flow, increase transit service, and enhance pedestrian and bicycle facilities.

Policy T-72: Reassess the land use element, level of service standard, and funding strategies if probable funding falls short of meeting existing needs and to ensure that the land use element, transportation plans, and financing plan are coordinated and consistent.

Policy T-73: Evaluate establishing a transportation benefit district (TBD) as allowed under state law.



INTERGOVERNMENTAL COORDINATION

A significant amount of travel that occurs in Renton is regional in nature – with either the origin or destination (sometimes both) outside city limits. Effectively managing flow within and through the City requires extensive coordination with neighboring jurisdictions, transit service providers, and regional, state, and federal entities.

POLICIES

Policy T-74: Develop and maintain relationships between Renton and other agencies and local jurisdictions for cooperative planning of common transportation improvements.

Policy T-75: Continue to coordinate Renton's Transportation Element with adjacent jurisdictions' transportation and land use goals, countywide policies, regional land use and transportation plans, and statewide goals outlined in the GMA.

Policy T-76: Pursue strategies to address inconsistencies (i.e. interlocal agreements) and adjust Renton's Transportation Element, as needed.

DOCUMENTS INCORPORATED BY REFERENCE

- Appendix A: Transportation Improvement Projects and Programs